

CLAIMS

What is claimed is:

- 1 1. A method of customizing a standard user interface associated with a universal printer
2 driver comprising the steps of:
3 associating an item of a standard user interface data structure to a first object;
4 associating an item of a customized user interface to a second object;
5 linking the first object to the second object through a software interface, the software
6 interface for facilitating communication between the first object and the second object; and
7 displaying the customized user interface.
- 1 2. The method of claim 1 wherein the step of displaying comprises accessing a definition
2 file, the definition file comprising information related to the customized user interface.
- 1 3. The method of claim 2 wherein the information related to the customized user interface
2 comprises at least one additional item compatible with the standard user interface structure.
- 1 4. The method of claim 1 further comprising the step of filtering at least one item of the
2 standard user interface data structure prior to the displaying step.
- 1 5. The method of 4 wherein the filtering step comprises writing to a file, the file comprising
2 data related to a state of at least one constant, the state of the at least one constant being
3 determinative of inclusion in the standard user interface data structure.
- 1 6. Computer software, residing on a computer-readable storage medium, comprising a set of
2 instructions that cause a computer to customize a standard user interface associated with a
3 universal printer driver by:
4 associating an item of a standard user interface data structure to a first object;

5 associating an item of a customized user interface to a second object;
6 linking the first object to the second object through a software interface, the software
7 interface for facilitating communication between the first object and the second object; and
8 displaying the customized user interface.

1 7. A method of extending rendering functionality of a standard universal printer driver
2 comprising the steps of:

3 generating a tagging bitmap, the tagging bitmap having substantially similar boundaries
4 as a banding bitmap of the standard universal driver, the banding bitmap for use in rendering
5 image information;

6 intercepting a drawing call to the banding bitmap, the drawing call comprising a drawing
7 function and an object type related to the drawing function;

8 storing the object type associated with the drawing call in the tagging bitmap;

9 performing error correction of the object type stored in the tagging bitmap; and

10 incorporating the object type stored in the tagging bitmap with the image information of
11 the banding bitmap to render a final output.

1 8. The method of claim 7 further comprising the step of preprocessing the image information of
2 the banding bitmap by alpha-blending a watermark image with the image information.

1 9. The method of claim 7 wherein the step of performing error correction comprises
2 performing error correction related to raster operation functions.

1 10. The method of claim 7 wherein the step of storing comprises storing information related
2 to a half-tone filter.

- 1 11. The method of claim 10 wherein the information related to the half-tone filter comprises
2 information determinative of the half-tone filter to apply to the image information on a pixel-by-
3 pixel basis.
- 1 12. The method of claim 7 wherein the step of storing comprises storing information related
2 to color management.
- 1 13. The method of claim 12 wherein the color management relates to converting from an
2 input color space to an output color space on a pixel-by-pixel basis.
- 1 14. The method of claim 12 wherein the color management relates to black-generation.
- 1 15. The method of claim 7 wherein the object type stored in the tagging bitmap facilitates
2 white space skipping.
- 1 16. The method of claim 7 wherein the object type stored in the tagging bitmap facilitates
2 transition determination.
- 1 17. Computer software, residing on a computer-readable storage medium, comprising a set of
2 instructions that extend the rendering functionality of a standard user interface associated with a
3 universal printer driver by:
4 generating a tagging bitmap, the tagging bitmap having substantially similar boundaries
5 as a banding bitmap of the standard universal driver, the banding bitmap for use in rendering
6 image information;
7 intercepting a drawing call to the banding bitmap, the drawing call comprising a drawing
8 function and an object type related to the drawing function;
9 storing the object type associated with the drawing call in the tagging bitmap;
10 performing error correction of the object type stored in the tagging bitmap; and

11 incorporating the object type stored in the tagging bitmap with the image information of
12 the banding bitmap to render a final output.

1 18. A method of providing printer status information comprising the steps of:
2 using a field in a printer status page to generate a simple network management protocol
3 request;
4 communicating the simple network management protocol request to a simple network
5 management protocol server resident on at least one of a remote printer and a remote printer
6 server;
7 translating the simple network management protocol response provided by the at least
8 one of the remote printer and the remote printer server into a format usable by the printer status
9 page; and
10 inserting the translated simple network management protocol response into the field of
11 the printer status page.

1 19. The method of claim 18, wherein the printer status page is viewable by a web browser.

1 20. The method of claim 18, wherein the printer status page comprises hypertext markup
2 language.

1 21. The method of claim 18 wherein the communicating step comprises communicating the
2 simple network management protocol request from a computer to the at least one of the remote
3 printer and the remote printer server using a standard universal serial bus driver.

1 22. The method of claim 18 wherein the communicating step comprises communicating the
2 simple network management protocol request from a computer to the at least one of the remote
3 printer and the remote printer server using a standard networking protocol.

1 23. The method of claim 22 wherein the standard networking protocol is selected from the
2 group consisting of internetwork packet exchange, transition control protocol/internet protocol,
3 file transfer protocol, and user datagram protocol.

1 24. Computer software, residing on a computer-readable storage medium, comprising a set of
2 instructions that cause a computer to provide printer status information by:

3 using a field in a printer status page to generate a simple network management protocol
4 request;

5 communicating the simple network management protocol request to a simple network
6 management protocol server resident on at least one of a remote printer and a remote printer
7 server;

8 translating the simple network management protocol response provided by the at least
9 one of the remote printer and the remote printer server into a format usable by the printer status
10 page; and

11 inserting the translated simple network management protocol response into the field of
12 the printer status page.